Proceedings

from the

1997 NASA
Occupational Health Conference

Achieving Quality in Occupational Health

August 4 - 7, 1997
Cleveland, Ohio

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Foreword

Traditionally the National Aeronautics and Space Administration (NASA) sponsors or conducts conferences and symposia to exchange scientific and technical data and management experiences in virtually all of its many disciplines. Occupational Health is no exception. Periodic conferences convene to address the latest topics of concern, to share mutual and unique work experiences, and to hear from experts in areas of particular emphasis or currency relevant to the health of the Agency's workers.

The Conference in Cleveland broke a two and a half-year hiatus since the last NASA Occupational Health Conference was held. The Agency transferred lead center management of the Occupational Health Program from NASA Headquarters to Kennedy Space Center during that interval. NASA reduced and restructured its work force, modified contractual roles, and assumed new challenges in the international arena. It continues to be a preeminent scientific organization contributing to cutting edge technologies and advancing knowledge of our earth and the universe. In making these changes, NASA has not, however, lost the perspective of keeping its mission and accomplishments relevant and applicable to everyday life. Nor has it failed to recognize the importance of the NASA work force in previous and future accomplishments.

In addressing occupational health concerns, NASA firmly establishes the concepts of preventative medicine as critical elements for productivity and efficiency of employees. These concepts are mandated in an agency that has diverse and hazardous work settings in many of its Field Centers. However, the NASA Occupational Health Conference sought to attain a further objective: **achieving quality in occupational health.**

To meet this objective, the conference agenda included plenary sessions with guest speakers who addressed cogent, relevant discipline topics, workshops on important and forcing questions, and special sessions on "in-house" subject matters deliberated at the forum or caucus level. The sessions provided opportunities for interchange of information within and among the several specialties representing Occupational Medicine and Environmental Health at each Field Center. In addition, this year, as a first, NASA inaugurated the well-acclaimed scientific and technical communication technique of poster presentations. An awards banquet, complementary social features, and a tour of the host Lewis Research Center were also scheduled.

These events contributed to a fine Conference from which every participant could obtain meaningful and useful knowledge. The Proceedings publishes the intent and content of the Conference.

It is my distinct privilege and pleasure to have participated in this notable meeting. I hope that its success will catalyze our Occupational Health personnel to strive for and attain new measures of quality and excellence.

Irene D. Long, M.D.
Acting Manager, NASA Occupational Health Program Office

Welcome and Opening Remarks

Chaired by **Irene D. Long, M.D.**
Acting Manager, NASA Occupational Health Program Office
Kennedy Space Center

The NASA Occupational Health Conference, the first one held since February 1995, was organized around the theme "Achieving Quality in Occupational Health." It was organized and managed by the staffs of the Biomedical Office and of the Occupational Health Program Office at Kennedy Space Center with assistance from support contractors. The Conference was held in Cleveland, Ohio and hosted by the Lewis Research Center. Many speakers and experts in the selected topics contributed to the Conference by giving relevant presentations to attendees representing all the NASA Field Centers. With such a stellar line up of participants, broad Agency representation, and laudable objectives, it was wholly fitting that dignitaries from several orientations should provide words of welcome and motivation to the attendees.

Dr. Irene D. Long, Director of the Biomedical Office and Acting Manager of the Occupational Health Program Office at Kennedy Space Center officially opened the Conference with preliminary remarks about the its design and intent. She noted that transfer of management of the Program Office from NASA Headquarters to the Biomedical Office at the Kennedy Space Center had taken place earlier in the year, and that a whole new thrust for the Program was underway. After offering her own warm welcome, she introduced each of the other participants in the ceremonies.

Mr. Joseph Jasper, Commissioner for Environmental Health, Public Health Department of the City of Cleveland, extended to attendees his personal welcome on behalf of the City of Cleveland. He recalled for attendees the signal advances made by his City in improving the work environment and, hence, the occupational health of Cleveland citizens in general and employees in particular. His position provides him the opportunity to direct resources where they may most benefit the populace and encourage industry in Cleveland. He noted the common bond and objectives of his office and this NASA Conference, and invited all to enjoy the other pleasant offerings of this great city.

Mr. Donald J. Campbell, Director of the NASA Lewis Research Center, added his sincere welcome to Cleveland and to Lewis Research Center, anticipating the tour scheduled later in the Conference program. He commented briefly on the heritage, role and mission of the Center and pledged his support as host center for the Conference.

Mr. James L. Jennings, Deputy Director for Administration of the Kennedy Space Center, also welcomed Conference attendees, acknowledging the new lead center role in managing the Occupational Health Program for the Agency. He noted the unique role of the Kennedy Space Center as the nation's primary spaceport. He gave special assurance that the considerable experience from the long and illustrious implementation of Occupational Health Programs at Kennedy Space Center and other appropriate resources at the Center would be available to support the Agency Program Office.

Dr. Arnauld Nicogossian, Associate Administrator, Office of Life and Microgravity Sciences and Applications, NASA Headquarters, concluded the opening ceremonies with both welcome and challenge. Noting substantial roles that Occupational Health must assume in the present downsizing of the Agency and in future activities such as the International Space Station, Mars missions, and other space ventures, he identified four avenues of opportunity in NASA's search for quality:

1. Develop long range objectives and goals with the appropriate metrics to measure outcomes, not processes.
2. Engage the international community in space education and outreach to increase their understanding of NASA and U. S. Occupational Health initiatives with emphasis on prevention.
3. Promote the use of current NASA technology such as Web page development within the Occupational Health Program.
4. Provide long range planning to integrate Occupational Health Programs with space flight operations.

Upon conclusion of the formal welcomes and ceremonies, Dr. Long turned the moderation of the scientific program sessions of the Conference over to Drs. Emmett B. Ferguson and G. Wyckliffe Hoffler. They introduced invited guest speakers, workshop conductors, and in house presenters. They also coordinated schedules, made announcements, attended to logistics; and generally assured the smooth and timely flow of events.